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July 13, 2015

Congressional Committees

C-130 Force Structure: Air Force Addressed Statutory Elements in Its Report, but Decided Not to Transfer Certain Aircraft as Proposed

The Air Force's C-130 fulfills a wide range of intratheater airlift missions in peace and war, operating from active-duty Air Force, Air National Guard, and Air Force Reserve installations across the United States.¹ The C-130J is the latest addition to the C-130 fleet. According to the Air Force, the C-130J incorporates state-of-the-art technology, and can climb faster and higher, fly farther, and take off and land in a shorter distance than the older C-130H model. In addition to these operational advantages, the Air Force reported that the C-130J reduces personnel requirements, lowers operating and support costs, and provides life-cycle cost savings over earlier C-130 models. The National Defense Authorization Act (NDAA) for Fiscal Year 2013 required the Air Force to maintain an intra-theater airlift fleet size of at least 358 aircraft.² Air Mobility Command manages the Air Force's C-130 fleet, including decisions regarding the composition and location of C-130 aircraft.

The Air Force has made a number of proposals to both reduce the size of the C-130 fleet and to adjust the distribution of C-130s across various installations. For example, in 2013 the Air Force planned to transfer 10 C-130J aircraft from Keesler Air Force Base in Mississippi to Pope Army Air Field in North Carolina. However, in its proposal for fiscal year 2015, the Air Force indicated instead its intent to redirect the transfer of the 10 C-130J aircraft from Keesler Air Force Base in Mississippi to Little Rock Air Force Base in Arkansas. Figure 1 shows a C-130J aircraft taking off from Little Rock Air Force Base, Arkansas.

¹The Department of Defense describes intratheater airlift as providing air movement of forces, personnel and materiel within a geographic combatant command's area of responsibility. See Joint Chiefs of Staff, Joint Pub. 3-17, Air Mobility Operations at IV-3 (Sept. 30, 2013).

²See Pub. L. No. 112-239, § 1059(a) (2013). The Air Force had proposed retaining 326 intratheater airlift aircraft. However, section 1059 required the Air Force to retain 32 additional fixed-wing, intratheater airlift aircraft during fiscal year 2013.

Figure 1: A C-130J Takes Off from Little Rock Air Force Base, Arkansas



Source: U.S. Air Force photograph by Airman Scott Poe. | GAO-15-637R

Section 138 of the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 requires the Secretary of the Air Force to submit to the congressional defense committees an assessment of the costs and benefits of any proposed transfer of C-130 aircraft from one Department of Defense facility to another prior to obligating or expending fiscal year 2015 funds for such activity.³ Section 138 laid out seven required elements to be included in the report, such as an analysis of the recommended basing alignment that demonstrates that the recommendation is the most effective and efficient alternative for such basing alignment. In response, according to an Air Force official, the Air Force submitted its *Report on C-130 Force Structure* to the congressional defense committees on April 14, 2015.

Section 138 also included a provision for GAO to review the sufficiency of the Air Force’s report.⁴ This report assesses the extent to which the Air Force’s *Report on C-130 Force Structure* addressed the elements as required in Section 138.

To determine the extent to which the Air Force’s report addressed the mandate, we reviewed and analyzed the requirements for the study outlined in section 138 of the NDAA for Fiscal Year

³See Pub. L. No. 113-291, § 138(a), (b) (2014). Specifically, section 138 prohibits the obligation or expenditure of funds authorized to be appropriated by the act or otherwise made available for fiscal year 2015 for the transfer of C-130H or C-130J aircraft until a period of 60 days has elapsed following the submission of the assessment. § 138(a).

⁴§ 138(c).

2015 and compared them to the discussion in the Air Force's *Report on C-130 Force Structure* to determine whether each requirement was addressed. We also interviewed Air Force officials to understand the methodology and assumptions they used in developing the report. We did not conduct an independent assessment of the data, cost estimates, or recommendations presented in the *Report on C-130 Force Structure* as this was beyond the scope of our review.

We conducted this performance audit from October 2014 to July 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

We found that the report addressed all of the seven required elements in section 138 of the NDAA for Fiscal Year 2015. For example, the report included an assessment of force structure in a six-year basing plan from fiscal years 2015 through 2020 for the Air Force, Air Force Reserve, and Air National Guard that calls for a total force of 300 C-130 aircraft by fiscal year 2019. Furthermore, the report included an explanation of the costs and benefits of the proposed C-130 aircraft transfer from Keesler Air Force Base to Little Rock Air Force Base, as required by section 138. At the conclusion of the *Report on C-130 Force Structure*, the Secretary of the Air Force included an amendment that differs from the C-130 force structure plan presented earlier in the report—canceling the proposed transfer of 10 C-130J aircraft from Keesler Air Force Base to Little Rock Air Force Base. The amendment eliminated short-term relocation costs but is not consistent with the report's description of the most effective and efficient basing alignment.

We are not making any recommendations in this report.

Air Force's *Report on C-130 Force Structure* Addressed Statutory Elements

We found that the Air Force's *Report on C-130 Force Structure* addressed the seven elements of section 138 of the NDAA for Fiscal Year 2015. Our analysis is summarized in table 1.

Table 1: GAO’s Assessment of the Extent to Which the Air Force Report on C-130 Force Structure Addressed the Statutory Elements

Statutory elements	GAO assessment of the Air Force report	Comments
(1) A five-year plan for the force structure laydown of C-130H2, C-130H3, and C-130J aircraft. [Note A]	Addressed	The Air Force included a six-year plan for fiscal years 2015 through 2020 for the Air Force, Air Force Reserve, and Air National Guard C-130 force structure. This plan includes the closure of the 440th Airlift Wing at Pope Army Airfield, and the reduction of excess C-130 capacity.
(2) An identification of how such plan deviates from the total force structure proposal of the Secretary described in section 1059(a) of the National Defense Authorization Act for Fiscal Year 2013	Addressed	Among other changes, the Secretary’s proposed total-force structure referenced in the National Defense Authorization Act for Fiscal Year 2013 called for a total force size of 326 C-130 aircraft. [Note B] In contrast, the six-year force structure included in the C-130 report called for a total force size of 300 aircraft by fiscal year 2019.
(3) An explanation of why such plan deviates, if in any detail, from such proposal.	Addressed	According to the report, the six-year plan deviates from the previous proposal because the Air Force subsequently completed a mobility capabilities assessment that, among other findings, recommended a total force of C-130s ranging from 248 to 320 aircraft.
(4) An assessment of the national security benefits and any other expected benefits of the proposed transfers under subsection (a), including benefits for the facilities expected to receive the transferred aircraft.	Addressed	The Air Force reported that the proposed transfer would have enabled operational benefits and resulted in budgetary savings. However, later in the report, the Secretary of the Air Force canceled the proposed transfer of 10 C-130J aircraft from Keesler to the Little Rock Air Force Base.
(5) An assessment of the costs of the proposed transfers, including the impact of the proposed transfers on the facilities from which the aircraft will be transferred.	Addressed	According to the report, the transfer of 10 C-130Js from Keesler to Little Rock would have cost an estimated \$24.3 million—including \$375,000 in fuel, parts, and equipment shipping; \$10 million in permanent change of station costs; and \$13.9 million in retraining.
(6) An analysis of the recommended basing alignment that demonstrates that the recommendation is the most effective and efficient alternative for such basing alignment.	Addressed	According to the report, the relocation of 10 C-130Js from Keesler Air Force Base would have resulted in a consolidation of C-130 aircraft into larger-sized units in fewer locations. The report also noted that this consolidation would have reduced excess capacity, decreased operating costs, and increased operational efficiencies.
(7) For units equipped with special capabilities, including the modular airborne firefighting system capability, a certification that missions using such capabilities will not be negatively affected by the proposed transfers. [Note C]	Addressed	As stated in the report, although C-130H Air Force Reserve units equipped with the special Modular Airborne Fire Fighting Systems capability at Cheyenne Air National Guard Base and Peterson Air Force Base will each lose four C-130H aircraft and associated personnel, these units will retain the number of aircraft and personnel required to complete their missions.

Source: GAO analysis of Air Force Report on C-130 Force Structure | GAO-15-637R

Notes: See Pub. L. No. 113-291, § 138(a), (b) (2014). Section 138 requires the Air Force to include at least the seven elements described in table 1.

Note A: According to Air Force officials, the report does not differentiate between the H2 and H3 C-130H submodels because the budgeted operation and maintenance costs of these submodels are the same.

Note B: In addition to the fleet-size of 326 C-130 aircraft proposed by the Secretary of the Air Force, section 1059(a) of the National Defense Authorization Act for Fiscal Year 2013 required the Secretary to retain an additional 32 fixed-wing, intratheater airlift aircraft during that fiscal year. The Air Force selected the C-130 to meet the intratheater airlift requirement and, as a result, retained 358 C-130 aircraft in fiscal year 2013. According to the report, the Air Force also opted to retain the 358 aircraft and an additional 6 C-130 aircraft transferred from U.S. Southern Command in fiscal year 2014.

Note C: Modular airborne firefighting systems fit inside C-130 aircraft and enable the drop of either water or fire retardant. As needed, the U.S. Forest Service can request the aid of the U.S. Air Force units equipped with modular airborne firefighting systems.

Report Includes Aircraft Force Structure Plan for Fiscal Years 2015 through 2020

To address element one of section 138, which requires a five-year plan for force structure laydown, the Air Force's *Report on C-130 Force Structure* includes a six-year plan for the C-130 fleet for fiscal years 2015 through 2020 for the Air Force, Air Force Reserve, and Air National Guard. The plan calls for a total force of 300 aircraft by fiscal year 2019 (see table 2).

Table 2: Air Force's Proposal for Fiscal Year (FY) 2016 C-130 Force Structure by Component and Aircraft Type for FY 2015 through 2020

	Aircraft type	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Air Force active duty	C-130 H	17	13	4 [Note A]	0	0	0
	C-130 J	79	85	94	98	100	100
Air Force Reserve	C-130 H	56	56	56 [Note A]	56 [Note A]	56 [Note A]	56 [Note A]
	C-130 J	10	10	10	10	10	10
Air National Guard	C-130 H	140	140	138 [Note A]	138 [Note A]	138 [Note A]	138 [Note A]
	C-130 J	16	16	16	24	24	24
Air Force component to be determined	C-130 H	0	0	-10	-28	-28	-28
Total C-130 aircraft		318	320	308	298	300	300

Source: Air Force | GAO-15-637R

Note A: While the Air Force has provided the planned overall size of the C-130H fleet, the size of each component's C-130H fleet after fiscal year 2016 has not been provided.

The plan's key changes in C-130 force structure include the transfer of 10 C-130J Air Force Reserve aircraft from Keesler Air Force Base to Little Rock Air Force Base, the closure of the 440th Airlift Wing at Pope Army Airfield, the closure of active-duty associate units, and the reduction of excess C-130 capacity. For fiscal year 2013, the Air Force initially proposed transferring 10 C-130J aircraft from Keesler Air Force Base to Pope Army Airfield. According to the *Report on C-130 Force Structure*, this proposal would have allowed the Air Force Reserve to reduce the overall number of C-130s in its inventory by retiring the C-130H aircraft at Pope Army Airfield and replacing them with C-130J aircraft. The Air Force selected Keesler Air Force Base to lose 10 C-130J aircraft because, as stated in the report, it was the only unit within the Air Force Reserve with two C-130J flying squadrons (each squadron consists of 10 C-130J aircraft).⁵ According to the report, the Air Force notified Congress in March 2014 of its intent to transfer Keesler Air Force Base aircraft to the Little Rock Air Force Base instead of the earlier plan to transfer them to Pope Army Airfield and to close the 440th Airlift Wing at Pope Army Airfield. According to the *Report on C-130 Force Structure*, by fiscal year 2018 all C-130H aircraft will have been removed from the Air Force's active-duty fleet (see table 2). Thus, the Air Force plan also includes the closure of active-duty C-130H associate units in Wyoming,

⁵The second squadron at Keesler Air Force Base is the 53rd Weather Reconnaissance Squadron which operates a modified version of the C-130J, configured with weather instrumentation to collect data from hurricanes and winter storms. According to Air Force officials, although this squadron is part of the Air Force Reserve 403rd Wing, these C-130J aircraft are not managed by the Air Mobility Command and as a result are not included in the Air Force's C-130 force structure.

Colorado, Arkansas and North Carolina.⁶ According to the report, while such associate units once offered operational efficiencies by enabling the sharing of C-130H aircraft and military personnel between Air Force, Air Force Reserve, and Air National Guard units, such efficiencies are no longer relevant without active-duty C-130H aircraft. Furthermore, as stated in the report, the closure of such associate units would save a total of \$314.8 million through fiscal year 2020.

For element two, which requires the Air Force to identify how its current plan differs from the total force-structure proposal of the Secretary of the Air Force referenced in the NDAA for Fiscal Year 2013, the report identified a planned reduction in the size of the C-130 fleet from 364 to 328 aircraft by fiscal year 2019, the number proposed in the Air Force's five-year force-structure plan for fiscal year 2015. According to the *Report on C-130 Force Structure*, the reduction to 328 would save an estimated \$170.9 million through fiscal year 2020. Additionally, according to the report, the Air Force five-year C-130 force-structure proposal for fiscal year 2016 would further reduce the C-130 fleet size to 300 aircraft by fiscal year 2019 and save an additional \$320.9 million from fiscal years 2016 through 2020.

For element three, which requires the Air Force to explain why the current plan differs from the Secretary of the Air Force's proposal referenced in the NDAA for Fiscal Year 2013, the *Report on C-130 Force Structure* states that the proposals for fiscal years 2015 and 2016 were based, in part, on a subsequently completed Mobility Capabilities Assessment signed by the Office of the Secretary of Defense Cost Assessment and Program Evaluation, the Joint Chiefs, and the U.S. Transportation Command.⁷ The assessment recommended that the C-130 fleet-size requirement should range from 248 to 320 aircraft.

Report Cited Benefits and Costs of Transferring C-130Js from Keesler Air Force Base to Little Rock Air Force Base

The Air Force provided support for the proposed transfers of C-130J aircraft that included assessments of the benefits, costs, efficiencies, and effectiveness of the transfers. Specifically, to address the benefits of the transfers as required in element four, the report cited operational and national security value in transferring 10 C-130J aircraft to Little Rock Air Force Base, including the formal and informal exchanges of personnel, equipment, and expertise at one location, and reported no additional national security risks from the once-planned transfers.

Regarding the costs of the transfers as required by element five, the transfer of 10 C-130Js from Keesler Air Force Base to Little Rock Air Force Base would cost \$24.3 million, according to the *Report on C-130 Force Structure*. By comparison, the report stated that retaining 10 C-130J aircraft at Keesler Air Force Base would cost \$60 million from fiscal years 2016 through 2020 because the Air Force Reserve unit would need to hire and train about 100 personnel to replace crews from the deactivated 345th Airlift Squadron active-duty associate unit. Also, retaining the 10 aircraft at Keesler would drive a recurring annual cost of \$24 million to \$46 million at Little Rock Air Force Base depending on whether the Little Rock Air Force Reserve unit uses C-130s assigned to an active-duty unit at Little Rock Air Force Base or is assigned its own aircraft.

⁶An active associate unit consists of an Air Force Reserve or Air National Guard unit retaining principal responsibility for a weapon system or systems, which it shares with one or more active-duty Air Force units.

⁷U.S. Department of Defense Cost Assessment & Program Evaluation, The Joint Chiefs of Staff, U.S. Transportation Command, *Mobility Capabilities Assessment*, (Washington, D.C.: Department of Defense, 2013). (Document is classified Secret.)

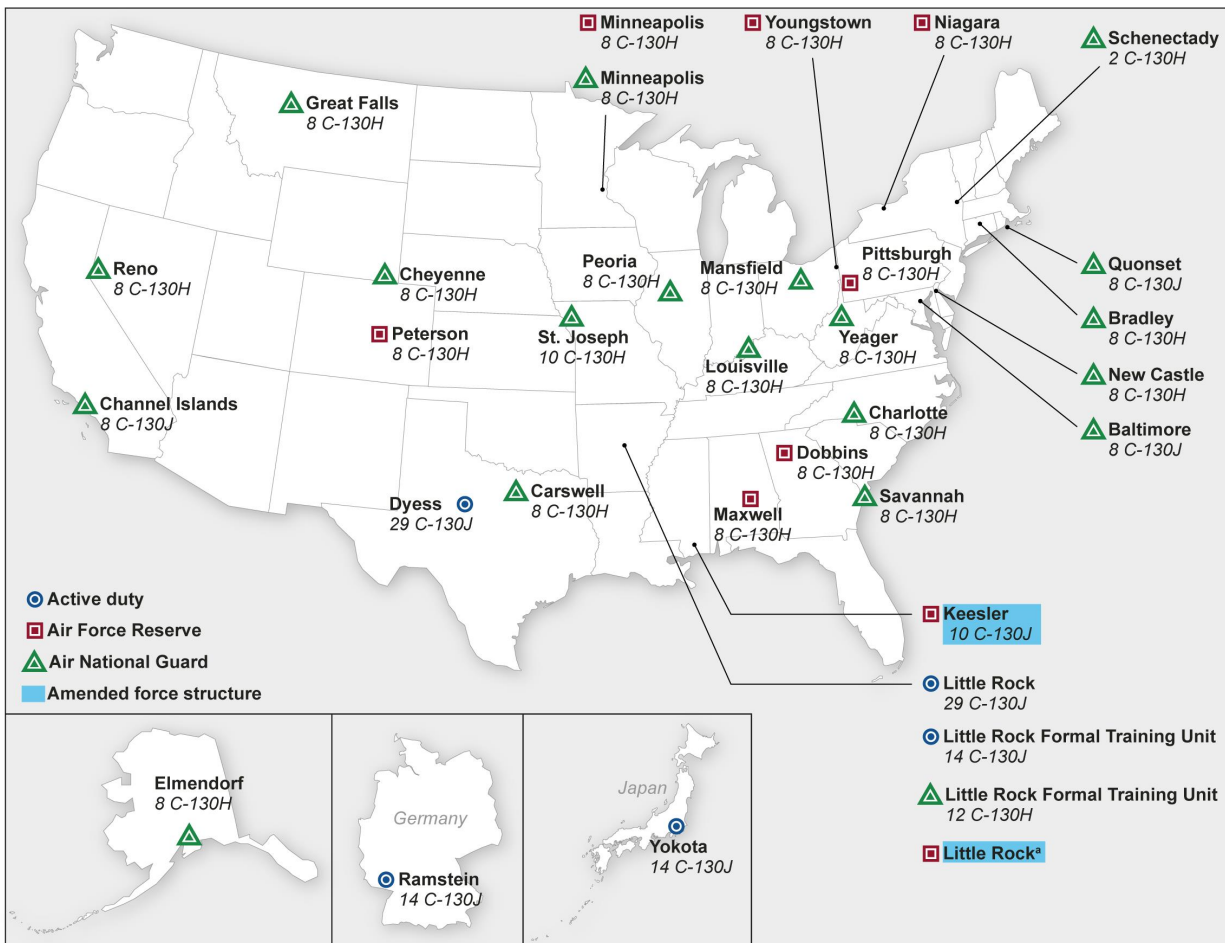
Air Force's Amended Plan Cancels the Planned Transfer of C-130Js to Little Rock Air Force Base

To address element six, which requires an analysis of the recommended basing alignment that shows it to be the most effective and efficient, the report states that the Air Force's six-year force-structure plan—including the proposed transfer of 10 C-130J aircraft from Keesler to the Little Rock Air Force Base—represents the most effective and efficient basing alignment for its C-130H and C-130J aircraft. Little Rock Air Force Base houses two C-130 formal training units, the C-130J Weapons School, and three Total Force combat airlift units. According to the *Report on C-130 Force Structure*, consolidation of the 10 C-130J aircraft at Little Rock Air Force Base would enable operational benefits, such as formal and informal exchanges of personnel, equipment, and expertise.

However, at the conclusion of the report, there is an amendment by the Secretary of the Air Force that altered the recommended C-130 most cost effective and efficient force structure basing by effectively cancelling the transfer of C-130 aircraft between Keesler and Little Rock Air Force bases. According to the report, the planned transfer was cancelled to prevent the short-term costs and turbulence the relocation would have created, but no additional analysis is provided. Although the Secretary of the Air Force's amendment cancelled the proposed transfer of 10 C-130J aircraft to Little Rock Air Force Base, it did not alter the planned closure of the 440th Airlift Wing and the reduction of 616 positions at Pope Army Airfield. The wing's closure, according to the *Report on C-130 Force Structure*, would result in a cost saving of \$116 million through fiscal year 2020.

Additionally, according to the *Report on C-130 Force Structure*, after closing the 440th Airlift Wing at Pope Army Airfield, the Air Force would continue to support all Army movement requirements using C-17 and C-130 aircraft located at sites other than Pope Army Airfield. Figure 2 shows the proposed basing alignment as amended by the Secretary of the Air Force.

Figure 2: Proposed Fiscal Year 2019 C-130 Basing Alignment, as Amended by the Secretary of the Air Force



Source: GAO analysis of Air Force data. | GAO-15-637R

Data Table for Figure 2: Proposed Fiscal Year 2019 C-130 Basing Alignment, as Amended by the Secretary of the Air Force

Country	State	Base name/location	Base type	Aircraft
USA	Alabama	Maxwell	Air Force Reserve	8 C-130H
	Alaska	Elmendorf	Air National Guard	8 C-130H
	Arkansas	Little Rock	Active duty	29 C-130J
		Little Rock Formal Training Unit	Active duty	14 C-130J
		Little Rock Formal Training Unit	Air National Guard	12 C-130H
		Little Rock [Note A] [Note B]	Air Force Reserve	N/A
	California	Channel islands	Air National Guard	8 C-130J
	Colorado	Peterson	Air Force Reserve	8 C-130H
	Connecticut	Bradley	Air National Guard	8 C-130H
	Delaware	New Castle	Air National Guard	8 C-130H
		Dobbins	Air Force Reserve	8 C-130H
	Georgia	Savannah	Air National Guard	8 C-130H
		Peoria	Air National Guard	8 C-130H

Country	State	Base name/location	Base type	Aircraft
	Kentucky	Louisville	Air National Guard	8 C-130H
	Maryland	Baltimore	Air National Guard	8 C-130J
	Minnesota	Minneapolis	Air Force Reserve	8 C-130H
		Minneapolis	Air National Guard	8 C-130H
	Mississippi	Keesler [Note B]	Air Force Reserve	10 C-130J
	Missouri	St. Joseph	Air National Guard	10 C-130H
	Montana	Great Falls	Air National Guard	8 C-130H
	Nevada	Reno	Air National Guard	8 C-130H
	New York	Niagara	Air Force Reserve	8 C-130H
		Schenectady	Air National Guard	2 C-130H
	North Carolina	Charlotte	Air National Guard	8 C-130H
	Ohio	Mansfield	Air National Guard	8 C-130H
		Youngstown	Air Force Reserve	8 C-130H
	Pennsylvania	Pittsburgh	Air Force Reserve	8 C-130H
	Rhode Island	Quonset	Air National Guard	8 C-130J
	Texas	Carswell	Air National Guard	8 C-130H
		Dyess	Active duty	29 C-130J
	West Virginia	Yeager	Air National Guard	8 C-130H
	Wyoming	Cheyenne	Air National Guard	8 C-130H
Germany	N/A	Ramstein	Active duty	14 C-130J
Japan	N/A	Yokota	Active duty	14 C-130J

Source: GAO analysis of Air force data. | GAO-15-637R

Notes: The Air Force's C-130 force structure includes only aircraft managed by the Air Mobility Command. By fiscal year 2019, the Air Force has proposed reducing the C-130 fleet size depicted by 28 planes, but has not identified the components and locations to be affected by these reductions.

Note A: As cited in the report, the Air Force Reserve unit at Little Rock Air Base will not have assigned aircraft, but will operate active-duty C-130J aircraft.

Note B: Amended force structure.

Air Force Reported That Its Force-Structure Plan Does Not Affect the Missions of Units Equipped with Special Capabilities

To address element seven, which requires the Air Force to certify that the proposed transfers of C-130 aircraft will not negatively affect the missions of units equipped with special capabilities, the *Report on C-130 Force Structure* stated that the efficiencies gained by the closure of C-130H active associate units will not put the Modular Airborne Fire Fighting System mission at risk because all C-130H units equipped with a firefighting system as a special capability will retain the number of Air Force Reserve or Air National Guard personnel and equipment required to complete their missions.⁸ Specifically, the active associate units at Peterson Air Force Base and Cheyenne Air National Guard Base each had four more C-130H aircraft and associated personnel than their missions required. According to the report, these four aircraft will be retired and the active-duty personnel will be reassigned. C-130 active associations were created to support post-surge operations in Iraq and Afghanistan. However, according to the report, this

⁸Modular airborne firefighting systems fit inside C-130 aircraft and enable the drop of either water or fire retardant. As needed, the U.S. Forest Service can request the aid of the U.S. Air Force units equipped with modular airborne firefighting systems.

additional capacity is no longer needed and is inefficient to maintain given the Air Force's plans to retire all active-duty C-130H aircraft by fiscal year 2018.

Agency Comments

We are not making recommendations in this report. We provided a draft of this report to DOD for review and comment. DOD provided technical comments that were incorporated as appropriate.

We are providing copies of this report to the appropriate congressional committees, the Secretary of Defense and the Secretary of the Air Force. In addition, this report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-5431 or russellc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report include James A. Reynolds, Assistant Director; Virginia Chanley; Jeffrey Hubbard; James Lloyd III; Richard Powelson; and Michael Shaughnessy.

A handwritten signature in black ink, reading "Cary Russell". The signature is fluid and cursive, with the first name "Cary" and the last name "Russell" clearly distinguishable.

Cary B. Russell
Director, Defense Capabilities and Management

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